

May 15, 1997

Mr. J. E. Cross
President-Generation Group
Duquesne Light Company
Post Office Box 4
Shippingport, PA 15077

SUBJECT: ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT
RELATED TO INCREASED FUEL ENRICHMENT OF REACTOR FUEL - BEAVER VALLEY
POWER STATION, UNIT NO. 1 (TAC NO. M98048)

Dear Mr. Cross:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for license amendment dated February 27, 1997, in which you proposed to revise the Beaver Valley Power Station, Unit No. 1 technical specifications to increase the new fuel storage rack enrichment limit to a nominal 5.0 weight percent U-235.

The enclosed assessment has been sent to the Office of the Federal Register for publication. Please contact me at (301) 415-1409 if you have any questions regarding this matter.

Sincerely,

Original signed by:

Donald S. Brinkman, Project Manager
Project Directorate I-II
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-334

Enclosure: Environmental Assessment

cc w/encl: See next page

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DATE	4/23/97 <i>5/18/97</i>	4/23/97	5/18/97	5/15/97	

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in cursive script that reads "Donald S. Brinkman".

Donald S. Brinkman, Project Manager
Project Directorate I-II
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-334

Enclosure: Environmental Assessment

cc w/encl: See next page

J. E. Cros
Duquesne Light Company

Beaver Valley Power Station
Units 1 & 2

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UNITED STATES NUCLEAR REGULATORY COMMISSION

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

DOCKET NO. 50-334

BEAVER VALLEY POWER STATION, UNIT NO. 1

ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-66, issued to Duquesne Light Company, et al. (the licensee), for operation of the Beaver Valley Power Station, Unit No. 1 (BVPS-1), located in Beaver County, Pennsylvania.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed amendment would revise BVPS-1 Technical Specification (TS) 5.3.1.2 to allow storage of new reactor fuel in the new fuel storage racks with an enrichment not to exceed a nominal 5.0 weight percent Uranium-235.

The proposed amendment is in accordance with the licensee's application for dated February 27, 1997.

The Need for the Proposed Action:

The proposed changes to the Facility Operating License are needed so that the licensee can store and use more highly enriched fuel, and thereby provide the flexibility of extending the fuel irradiation/burnup to permit

longer fuel cycles (i.e., longer continuous period of operation). Use of the proposed more highly enriched fuels would require the use of fewer fuel assemblies over the remaining life of the plant.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed revisions to the TS. The proposed revisions would permit storage of new fuel in the new fuel storage racks and subsequent use of fuel enriched with Uranium-235 (U-235) to a nominal 5.0 weight percent (5.0 weight percent plus a tolerance of 0.05 weight percent). The safety considerations associated with the storage of and subsequent reactor operation with higher enriched fuel have been evaluated by the NRC staff. Based on its review, the NRC staff has concluded that such changes would not adversely affect plant safety. The proposed changes have no adverse affect on the probability of any accident. The higher enrichment, with increased fuel burnup, may slightly change the mix of fission products that might be released in the event of a serious accident, but such small changes would not significantly affect the consequences of serious accidents. No changes are being made in the types or amounts of any radiological effluents that may be released offsite. There is no significant increase in the allowable individual or cumulative occupational radiation exposure. Accordingly, the Commission concludes that the proposed action would result in no significant radiological environmental impact.

The environmental impacts of transportation resulting from the use of higher enrichment fuel and extended irradiation were published and discussed in the staff assessment entitled "NRC Assessment of the Environmental Effects of Transportation Resulting from Extended Fuel Enrichment and Irradiation,"

dated July 7, 1988. This assessment was published in connection with an Environmental Assessment related to the Shearon Harris Nuclear Plant, Unit 1, which was published in the Federal Register (53 FR 30355) on August 11, 1988, as corrected on August 24, 1988 (53 FR 32322). As indicated therein, the environmental cost contribution of an increase in the fuel enrichment of up to 5.0 weight percent Uranium-235 and irradiation limits of up to 60,000 gigawatt-days-per-metric-ton (GWD/MT) are either unchanged or may, in fact, be reduced from those summarized in Table S-4 as set forth in 10 CFR 51.52(c). These findings are applicable to the proposed increase at BVPS-1 given that the proposal involves 5% and burnup of less than 60,000 GWD/MT. Accordingly, the Commission concludes that there are no significant radiological environmental impacts associated with the proposed amendment.

With regard to potential nonradiological impacts of reactor operation with higher enrichment and extended irradiation, the proposed action involves features located entirely within the restricted area as defined in 10 CFR Part 20. It does not affect nonradiological plant effluents and has no other environmental impact. Accordingly, the Commission concludes that there are no significant nonradiological environmental impacts associated with the proposed action.

Alternative to the Proposed Action:

Since the Commission has concluded that there are no significant environmental effects that would result from the proposed action, any other alternative would have equal or greater environmental impacts and need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce environmental impact of plant operations and would result in reduced operational flexibility.

Alternative Use of Resources:

The action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Beaver Valley Power Station, Unit No. 1 dated July 1973.

Agencies and Persons Consulted:

In accordance with its stated policy, on April 14, 1997, the staff consulted with the Pennsylvania State official, Mr. Michael P. Murphy of the Bureau of Radiation Protection, Department of Environmental Protection, regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed license amendment.

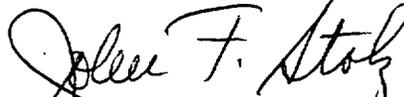
Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this proposed action, see the application for amendment dated February 27, 1997, that is available for public inspection at the Commission's Public Document Room, The Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document

room located at the B. F. Jones Memorial Library, 663 Franklin Avenue,
Aliquippa, Pennsylvania 15001.

Dated at Rockville, Maryland, this 15th day of May 1997.

FOR THE NUCLEAR REGULATORY COMMISSION



John F. Stolz, Director
Project Directorate I-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation